Publ. Mat. **60** (2016), 501–524
DOI: 10.5565/PUBLMAT_60216_07

RÖVER'S SIMPLE GROUP IS OF TYPE F_∞

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Abstract: We prove that Claas Röver's Thompson–Grigorchuk simple group $V\mathcal{G}$ has type F_∞. The proof involves constructing two complexes on which $V\mathcal{G}$ acts: a simplicial complex analogous to the Stein complex for V, and a polysimplicial complex analogous to the Farley complex for V. We then analyze the descending links of the polysimplicial complex, using a theorem of Belk and Forrest to prove increasing connectivity.

2010 Mathematics Subject Classification: 20F65, 20J05, 20E08.

Key words: Thompson's groups, Grigorchuk's group, finiteness properties, polysimplicial complex.